ABSTRACT

A pressurized delivery system for in-situ delivery of sub-soil remediation compounds to underground contaminated matter includes a liquid diaphragm pump connected to an inflow source of water, the pump being also in fluid communication with a plurality of bioslurry tanks connected in parallel, the bioslurry tanks each having a drain. Valve means are located between the liquid diaphragm pump and each of the bioslurry tanks for controlling either the alternate or simultaneous flow of fluid from the pump to each of the bioslurry tanks. A second liquid diaphragm pump having an inlet port for receiving the combined flow of the bioslurry tanks has an outlet in fluid communication with a system discharge port. The system further includes a source of compressed gas in fluid communication with the discharge port. A discharge rod is connected to the discharge port for delivery of remedial fluids to underground soils. A gas pressure line leads from a source of compressed gas to the discharge port and is also in fluid communication with the feed tanks for storage of injectants under pressure, the feed tanks being individually pressurized by the selective fluid communication with the pressure line. Each feed tank includes a separately valved exhaust port connected to the system discharge port such that the source of injectant may be switched from the bioslurry tanks to any of the feed tanks without loss of delivery pressure. The source of pressurized gas may be a mechanical compressor or a stored compressed gas.